

# Section 5

## Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, 2000

<b>Motorcycle Crashes 1993 - 2000 .....</b>	<b>5.2</b>
<b>Motorcycle Crash Severity .....</b>	<b>5.3</b>
<b>Motorcycle Crashes by County.....</b>	<b>5.4</b>
<b>Motorcycle Crash Times .....</b>	<b>5.5</b>
<b>Motorcycle Crash Characteristics.....</b>	<b>5.8</b>
<b>Motorcycle Crash Violations and Contributing Factors.....</b>	<b>5.10</b>
<b>Motorcycle Drivers Involved in Crashes .....</b>	<b>5.12</b>
<b>Motorcyclist Injury Severity .....</b>	<b>5.14</b>
<b>Motorcyclists by County.....</b>	<b>5.15</b>
<b>Motorcyclist Characteristics .....</b>	<b>5.16</b>

### TABLES

Table 5.01 Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000
Table 5.02 Motorcycle Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000
Table 5.03 Hour of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.04 Month of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.05 Day of Week for Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.06 Types of Total Crashes, Injury Crashes and Fatal Crashes Involving Motorcycles, Utah 2000
Table 5.07 Urban/Rural Location of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.08 Collision Description of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.09 Violations for Motorcycle Total Crashes and Injury Crashes, Utah 2000
Table 5.10 Contributing Factors of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.11 Age of Motorcycle Driver Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.12 Gender of Motorcycle Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Table 5.13 Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities by County, Utah 2000
Table 5.14 Age of Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000
Table 5.15 Gender of Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000
Table 5.16 Crash Placement of Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000
Table 5.17 Helmet Use by Motorcyclists Involved in Crashes, Utah 2000

### FIGURES

Figure 5.01 Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993 - 2000
Figure 5.02 Severity of Motorcycle Crashes as Reported by Police, Utah 2000
Figure 5.03 Hour of Motorcycle Injury Crashes and Fatal Crashes, Utah 2000
Figure 5.04 Day of Week for Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Figure 5.05 Age of Motorcycle Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000
Figure 5.06 Motorcyclist Injury Severity as Reported by Police, Utah 2000
Figure 5.07 Age of Total Motorcyclists, Injured Motorcyclists, and Motorcyclist Fatalities, Utah 2000
Figure 5.08 Motorcyclist Crash Fatalities, Utah 1989 –2000

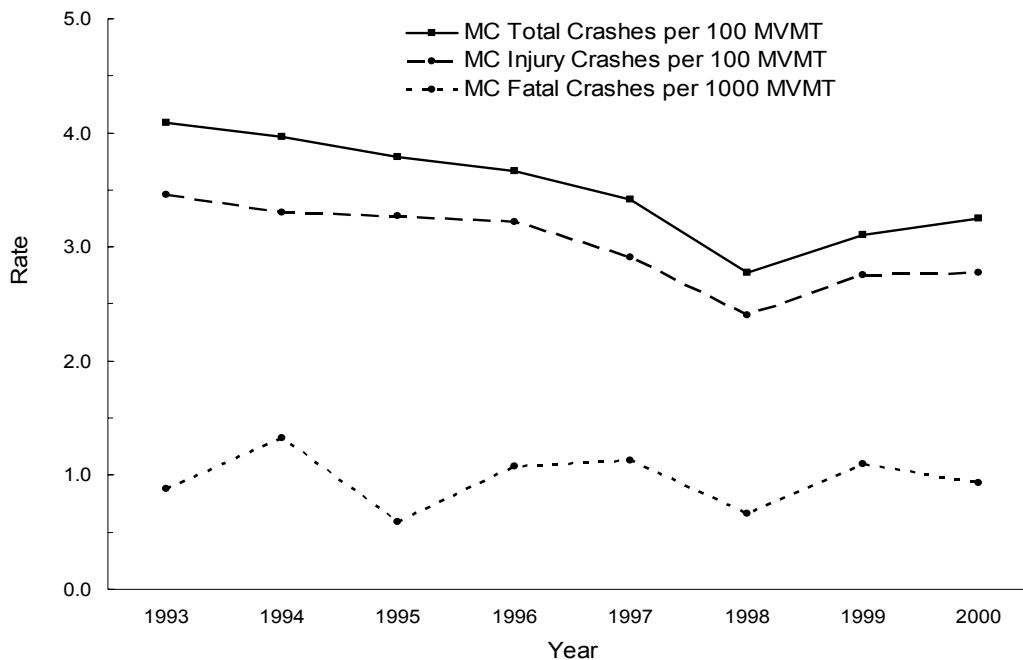
# Motorcycle Crashes 1993 - 2000

Table 5.01 and Figure 5.01 show the trends in motorcycle crashes from 1993 to 2000. Total motorcycle crashes, and motorcycle injury crashes declined from 1993 to 1998, with the lowest number of crashes occurring in 1998. In 2000, there was an 8.1% increase in total motorcycle crashes and an 3.7% increase in motorcycle injury crashes from the 1999 rates. While, fatal motorcycle crashes vary from year to year, the small number of fatal motorcycle crashes makes it difficult to compare increases and decreases from year to year.

Table 5.01 Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993-2000

Year	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	Rate per 100 MVMT	#	Rate per 100 MVMT	#	Rate per 1,000 MVMT
1993	698	4.1	589	3.5	15	0.9
1994	717	4.0	597	3.3	24	1.3
1995	711	3.8	614	3.3	11	0.6
1996	713	3.7	626	3.2	21	1.1
1997	697	3.4	594	2.9	23	1.1
1998	589	2.8	509	2.4	14	0.7
1999	678	3.1	602	2.8	24	1.1
2000	733	3.3	624	2.8	21	0.9

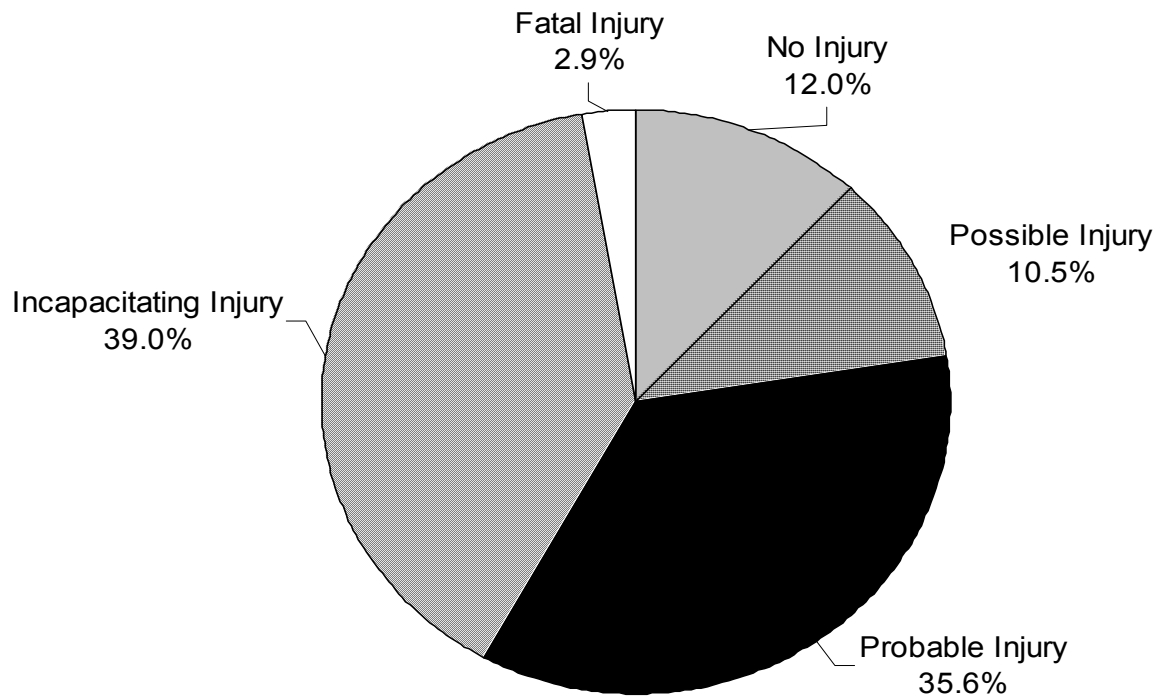
Figure 5.01 Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 1993-2000



# Motorcycle Crash Severity

Figure 5.02 shows the breakdown of motorcycle crash severity. Most of the motorcycle crashes resulted in an injury (88%) compared to 37.4% of all motor vehicle crashes. The percentage of motorcycle crashes that resulted in a fatality was 2.9%; this is nearly five times the percentage for all motor vehicle crashes (0.6%).

Figure 5.02 Severity of Motorcycle Crashes as Reported by Police, Utah 2000 (n=733)



# Motorcycle Crashes by County

The rates of total motorcycle crashes, motorcycle injury crashes and motorcycle fatal crashes for each county are shown in Table 5.02. The top three counties for total motorcycle crashes and motorcycle injury crashes based on million vehicle miles traveled were Wayne, Daggett and Rich. The top three counties for fatal motorcycle crashes based on million vehicle miles traveled were Rich, San Juan and Morgan.

Table 5.02 Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes by County, Utah 2000

County	MC Total Crashes			MC Injury Crashes			MC Fatal Crashes		
	#	Rate per 100 MVMT	Rate per 10,000 Population	#	Rate per 100 MVMT	Rate per 10,000 Population	#	Rate per 1,000 MVMT	Rate per 10,000 Population
Beaver	2	0.9	2.9	2	0.9	2.9	0	0.0	0.0
Box Elder	13	1.4	3.0	12	1.3	2.8	0	0.0	0.0
Cache	35	4.4	3.7	29	3.7	3.1	1	1.3	0.1
Carbon	10	2.9	4.4	10	2.9	4.4	0	0.0	0.0
Daggett	3	11.8	35.1	3	11.8	35.1	0	0.0	0.0
Davis	57	2.7	2.4	50	2.4	2.1	0	0.0	0.0
Duchesne	2	1.0	1.4	1	0.5	0.7	0	0.0	0.0
Emery	4	1.1	3.6	4	1.1	3.6	0	0.0	0.0
Garfield	7	5.2	14.7	5	3.7	10.5	1	7.4	2.1
Grand	5	1.8	4.6	3	1.1	2.7	0	0.0	0.0
Iron	10	1.8	2.9	10	1.8	2.9	0	0.0	0.0
Juab	4	1.2	4.9	4	1.2	4.9	0	0.0	0.0
Kane	4	3.2	5.3	3	2.4	4.0	1	8.1	1.3
Millard	4	1.0	3.1	3	0.7	2.3	1	2.4	0.8
Morgan	11	9.1	15.7	8	6.6	11.5	1	8.3	1.4
Piute	2	6.7	12.0	2	6.7	12.0	0	0.0	0.0
Rich	5	11.2	26.6	4	9.0	21.3	1	22.4	5.3
Salt Lake	278	3.8	3.2	228	3.1	2.6	5	0.7	0.1
San Juan	11	3.9	8.1	8	2.9	5.9	3	10.7	2.2
Sanpete	8	3.5	3.6	7	3.1	3.1	1	4.4	0.4
Sevier	14	3.6	7.1	13	3.3	6.6	0	0.0	0.0
Summit	9	1.4	3.3	8	1.3	2.9	1	1.6	0.4
Tooele	8	1.2	2.3	6	0.9	1.7	0	0.0	0.0
Uintah	3	1.0	1.2	1	0.3	0.4	0	0.0	0.0
Utah	127	4.2	3.7	116	3.8	3.4	1	0.3	0.0
Wasatch	4	1.6	2.8	4	1.6	2.8	0	0.0	0.0
Washington	29	3.2	3.4	27	3.0	3.1	0	0.0	0.0
Wayne	5	12.2	19.1	5	12.2	19.1	0	0.0	0.0
Weber	59	3.9	3.1	48	3.2	2.5	4	2.6	0.2
Statewide	733	3.3	3.4	624	2.8	2.9	21	0.9	0.1

# Motorcycle Crash Times

Total motorcycle crashes, and motorcycle injury crashes followed the same time pattern, peaking between 4 p.m. and 5 p.m. The highest proportion of fatal motorcycle crashes occurred during the hours of 12 noon and 10 p.m. (Table 5.03 and Figure 5.03).

Table 5.03 Hour of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Hour	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
12 a.m.	12	1.6%	12	1.9%	0	0.0%
1 a.m.	11	1.5%	8	1.3%	1	4.8%
2 a.m.	7	1.0%	7	1.1%	0	0.0%
3 a.m.	0	0.0%	0	0.0%	0	0.0%
4 a.m.	4	0.5%	4	0.6%	0	0.0%
5 a.m.	3	0.4%	2	0.3%	1	4.8%
6 a.m.	12	1.6%	8	1.3%	0	0.0%
7 a.m.	13	1.8%	8	1.3%	0	0.0%
8 a.m.	28	3.8%	22	3.5%	2	9.5%
9 a.m.	11	1.5%	10	1.6%	0	0.0%
10 a.m.	26	3.5%	20	3.2%	1	4.8%
11 a.m.	34	4.6%	29	4.6%	0	0.0%
12 p.m.	53	7.2%	44	7.1%	4	19.0%
1 p.m.	57	7.8%	50	8.0%	2	9.5%
2 p.m.	59	8.0%	50	8.0%	0	0.0%
3 p.m.	61	8.3%	51	8.2%	0	0.0%
4 p.m.	64	8.7%	58	9.3%	2	9.5%
5 p.m.	63	8.6%	58	9.3%	0	0.0%
6 p.m.	58	7.9%	48	7.7%	2	9.5%
7 p.m.	35	4.8%	31	5.0%	1	4.8%
8 p.m.	38	5.2%	33	5.3%	2	9.5%
9 p.m.	34	4.6%	31	5.0%	0	0.0%
10 p.m.	29	4.0%	20	3.2%	3	14.3%
11 p.m.	21	2.9%	20	3.2%	0	0.0%
Grand Total	733	100.0%	624	100.0%	21	100.0%

Figure 5.03 Hour of Motorcycle (MC) Injury Crashes and Fatal Crashes, Utah 2000 (See Table 5.03 for values)

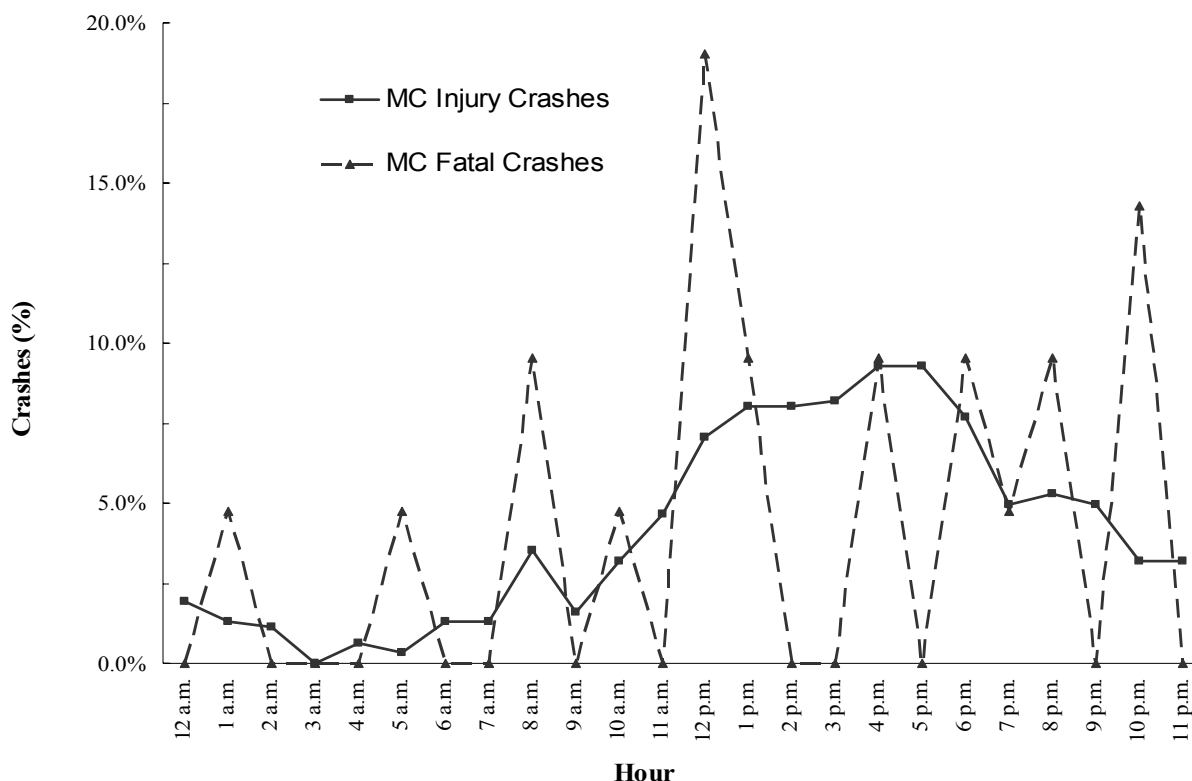


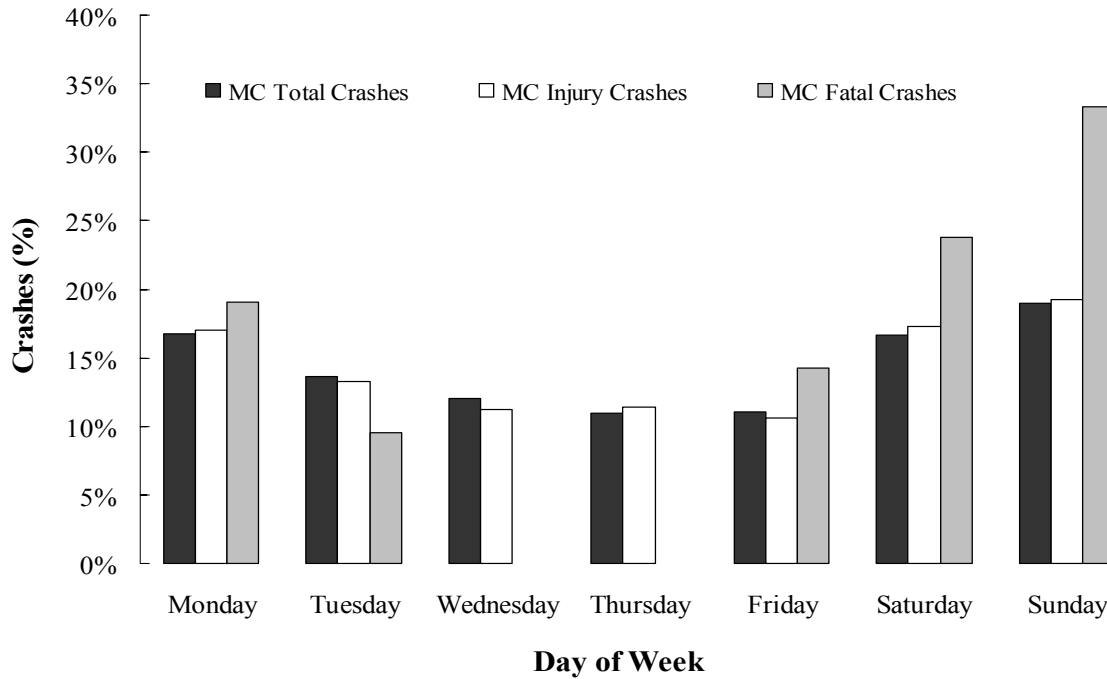
Table 5.04 shows the number of total motorcycle crashes and the rate of total motorcycle crashes per day for each month. May through September had the highest rate of total motorcycle crashes, injury crashes and fatal crashes per day. Very few motorcycle crashes occurred in the winter months, which may be due to the decrease of individuals riding motorcycles in the winter.

Table 5.04 Month of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Crash Month	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	Rate per Day	#	Rate per Day	#	Rate per Day
January	12	0.4	10	0.3	0	0.0
February	20	0.7	17	0.6	0	0.0
March	45	1.5	39	1.3	0	0.0
April	79	2.6	70	2.3	1	0.0
May	82	2.6	71	2.3	2	0.1
June	104	3.5	86	2.9	3	0.1
July	128	4.1	111	3.6	4	0.1
August	97	3.1	80	2.6	6	0.2
September	87	2.9	70	2.3	4	0.1
October	54	1.7	50	1.6	1	0.0
November	14	0.5	11	0.4	0	0.0
December	11	0.4	9	0.3	0	0.0
Grand Total	733	2.0	624	1.7	21	0.1

The largest number of total motorcycle crashes and motorcycle injury crashes occurred on Saturday, Sunday and Monday (Figure 5.04 and Table 5.05). Fatal motorcycle crashes most frequently occurred on Sunday, accounting for 33.3% of all fatal motorcycle crashes. In fact, motorcycle crashes on Sunday were 2 times more likely to be fatal than motorcycle crashes occurring on other days.

Figure 5.04 Day of Week for Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000



Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one

Table 5.05 Day of Week for Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Day of Week	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
Monday	123	16.8%	106	17.0%	4	19.0%
Tuesday	100	13.6%	83	13.3%	2	9.5%
Wednesday	88	12.0%	70	11.2%	0	0.0%
Thursday	80	10.9%	71	11.4%	0	0.0%
Friday	81	11.1%	66	10.6%	3	14.3%
Saturday	122	16.6%	108	17.3%	5	23.8%
Sunday	139	19.0%	120	19.2%	7	33.3%
Grand Total	733	100.0%	624	100.0%	21	100.0%

# Motorcycle Crash Characteristics

Table 5.06 shows that crashes involving another motor vehicle represented most of the total motorcycle crashes (50.6%). “Ran off the roadway “ (to the right, to the left, or through the median), accounted for one-third (33.4%) of the fatal motorcycle crashes.

Table 5.06 Types of Total Crashes, Injury Crashes and Fatal Crashes Involving Motorcycles (MC), Utah 2000

Crash Type	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
Two Motor Vehicles	371	50.6%	296	47.4%	9	42.9%
Overtaken in Roadway	100	13.6%	95	15.2%	1	4.8%
Ran Off Roadway - To the Right	88	12.0%	79	12.7%	5	23.8%
Other Non-Collision	52	7.1%	40	6.4%	2	9.5%
Ran Off Roadway - To the Left	38	5.2%	34	5.4%	1	4.8%
Motor Vehicle and Fixed Object	32	4.4%	31	5.0%	1	4.8%
Motor Vehicle and Other Object	19	2.6%	18	2.9%	0	0.0%
Motor Vehicle and Wild Animal	18	2.5%	17	2.7%	1	4.8%
Motor Vehicle and Domestic Animal	5	0.7%	5	0.8%	0	0.0%
Motor Vehicle and Bicycle	4	0.5%	4	0.6%	0	0.0%
Ran Off Roadway Through Median	4	0.5%	3	0.5%	1	4.8%
Motor Vehicle and Pedestrian	2	0.3%	2	0.3%	0	0.0%
Grand Total	733	100.0%	624	100.0%	21	100.0%

The majority of total motorcycle crashes (64.9%) occurred in large urban areas (Table 5.07). However, the largest percentage of fatal motorcycle crashes (66.7%) occurred in rural areas. Rural motorcycle crashes were 4 times more likely to result in a fatality compared to motorcycle crashes in other areas.

Table 5.07 Urban / Rural Location of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Urban / Rural Location	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
Rural Area - Up to 5,000	256	34.9%	221	35.4%	14	66.7%
Small Urban - 5,000 to 49,999	30	4.1%	26	4.2%	1	4.8%
Moderate Urban - 50,000 to 199,999	12	1.6%	9	1.4%	0	0.0%
Large Urban - 200,000 or More	434	59.2%	367	58.8%	6	28.6%
Missing	1	0.1%	1	0.2%	0	0.0%
Grand Total	733	100.0%	624	100.0%	21	100.0%



Table 5.08 shows that the leading collision types for total motorcycle crashes were single vehicle rollovers (40.4%) and broadsides (23.6%). These were also the leading collision types for injury motorcycle crashes at 43.6% and 24.5%, respectively. Single vehicle rollovers accounted for over one-third (38.1%) of fatal motorcycle crashes.

Table 5.08 Collision Description of Motorcycle (MC) Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Collision Description	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
Single Vehicle Rollover	296	40.4%	272	43.6%	8	38.1%
Broadside	173	23.6%	153	24.5%	4	19.0%
Other	113	15.4%	85	13.6%	5	23.8%
Rear End	104	14.2%	76	12.2%	0	0.0%
Side Swipe	32	4.4%	26	4.2%	1	4.8%
Head-on	8	1.1%	6	1.0%	2	9.5%
Pedestrian/Bicyclist Crash	6	0.8%	6	1.0%	0	0.0%
Single Vehicle Fixed Object	1	0.1%	0	0.0%	1	4.8%
Grand Total	733	100.0%	624	100.0%	21	100.0%

# Motorcycle Crash Violations and Contributing Factors

Over one-third (34.6%) of motorcycle drivers involved in crashes received a citation (Table 5.09). Excluding “catch-all” other categories, the leading violations cited were “reckless driving” (11.7%) and “speeding” (10.2%). No citations were given to a motorcycle driver involved in fatal crash.

Table 5.09 Violations for Motorcycle (MC) Total Crashes and Injury Crashes, Utah 2000

Violations	MC Total Crashes		MC Injury Crashes	
	#	%	#	%
All other non-moving violations	66	25.8%	58	26.4%
Reckless driving	30	11.7%	26	11.8%
All other moving violations	30	11.7%	30	13.6%
Speeding	26	10.2%	26	11.8%
Improper lookout	24	9.4%	20	9.1%
Driving under the influence	22	8.6%	12	5.5%
Following too close	13	5.1%	13	5.9%
Negligent collision	8	3.1%	6	2.7%
Improper passing	6	2.3%	6	2.7%
Improper lane change	4	1.6%	3	1.4%
Red light	3	1.2%	2	0.9%
Improper turn	3	1.2%	2	0.9%
Stop sign	1	0.4%	1	0.5%
Hit and run	1	0.4%	1	0.5%
Grand Total	256	100.0%	220	100.0%

Table 5.10 shows that the leading contributing factor for total motorcycle crashes was "speed too fast"; accounting for 27.6% of contributing factors for total motorcycle crashes, and for 50% of the contributing factors in fatal motorcycle crashes. The contributing factors "driving under the influence", "had been drinking", and "under the influence of drugs" accounted for 3.7% of total motorcycle crashes.

Table 5.10 Contributing Factors of Motorcycle Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Contributing Factors	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	#	%	#	%	#	%
Speed Too Fast	143	27.6%	125	27.8%	11	50.0%
Other Improper Driving	124	23.9%	108	24.1%	5	22.7%
Improper Lookout	57	11.0%	48	10.7%	1	4.5%
Following Too Closely	32	6.2%	28	6.2%	0	0.0%
Non-Contact Vehicle Involved	22	4.2%	20	4.5%	1	4.5%
Improper Overtaking	20	3.9%	17	3.8%	0	0.0%
Failed to Yield the Right of Way	17	3.3%	15	3.3%	0	0.0%
Drove Left of Center	15	2.9%	11	2.4%	2	9.1%
Driving Under the Influence	14	2.7%	13	2.9%	0	0.0%
Disregarded Traffic Signal	10	1.9%	9	2.0%	1	4.5%
Improper Turn	10	1.9%	8	1.8%	0	0.0%
Other Defective Condition	10	1.9%	9	2.0%	0	0.0%
Tires Defective	9	1.7%	9	2.0%	0	0.0%
Brakes Defective	5	1.0%	4	0.9%	0	0.0%
Had Been Drinking	4	0.8%	4	0.9%	0	0.0%
Cargo Loss or Shift	3	0.6%	3	0.7%	0	0.0%
Hit and Run	3	0.6%	2	0.4%	0	0.0%
Wrong Side of Road	3	0.6%	3	0.7%	0	0.0%
Asleep	2	0.4%	2	0.4%	0	0.0%
Down Hill Runaway	2	0.4%	2	0.4%	0	0.0%
Explosion or Fire	2	0.4%	1	0.2%	1	4.5%
Fatigued	2	0.4%	1	0.2%	0	0.0%
Failed to Signal	1	0.2%	1	0.2%	0	0.0%
Headlights Insufficient or Out	1	0.2%	1	0.2%	0	0.0%
Improper Parking	1	0.2%	0	0.0%	0	0.0%
Other Lights or Reflecting/Defective	1	0.2%	1	0.2%	0	0.0%
Passed Stop Sign	1	0.2%	0	0.0%	0	0.0%
Separation of Units	1	0.2%	1	0.2%	0	0.0%
Stolen	1	0.2%	1	0.2%	0	0.0%
Towed Vehicle	1	0.2%	1	0.2%	0	0.0%
Under the Influence of Drugs	1	0.2%	1	0.2%	0	0.0%
Grand Total	518	100.0%	449	100.0%	22	100.0%

# Motorcycle Drivers Involved in Crashes

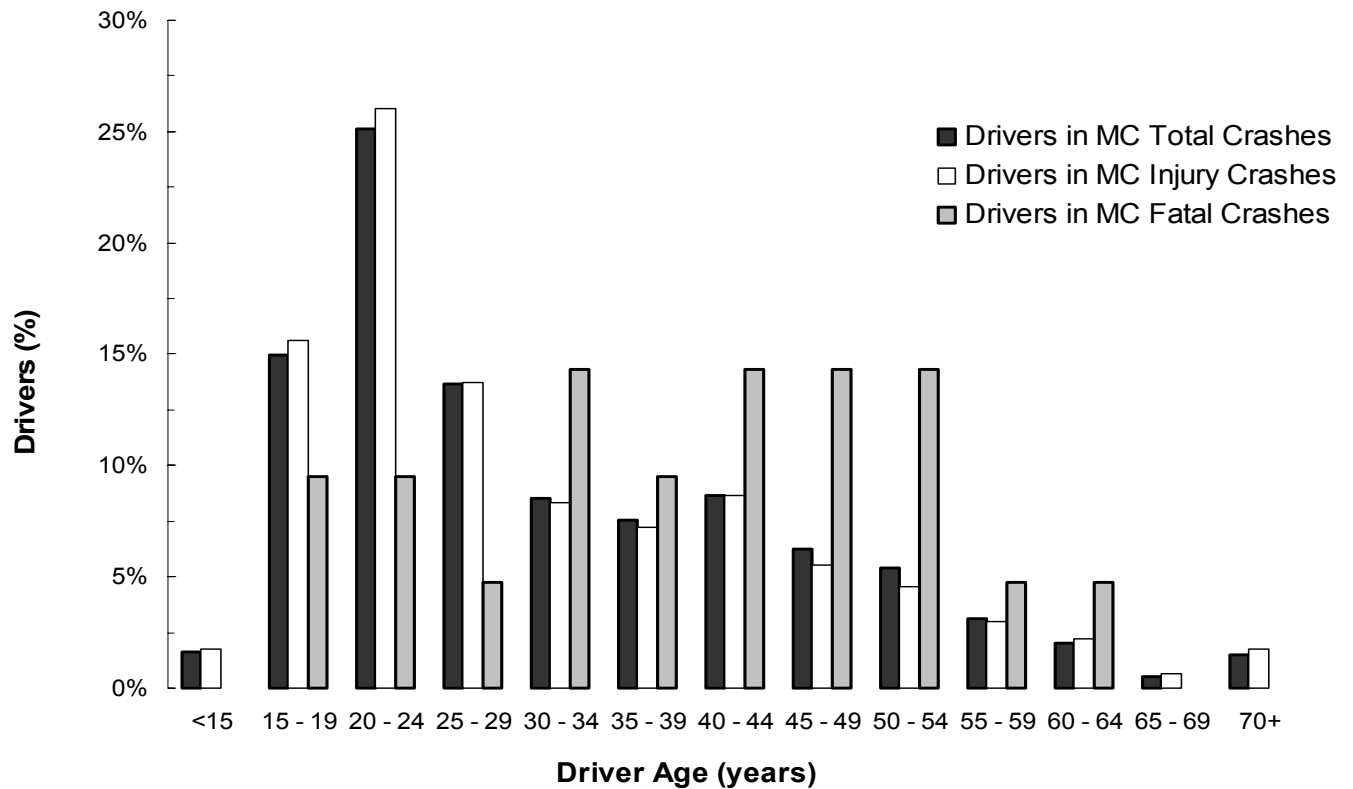
Table 5.11 and Figure 5.05 show that over one-half (55.3%) of the motorcycle drivers involved in total crashes were under the age of 30 years (Table 5.11). The number of motorcycle drivers involved in total crashes and injury crashes was highest for younger drivers (20-24 years) and decreased with increasing age. The number of motorcycle drivers involved in fatal crashes was highest between the ages of 30 and 34 years and 40 and 54 years, but clear patterns were not apparent due in part to the small number of fatal motorcycle crashes.

In order to drive a motorcycle on public roads in the state of Utah, a person must pass both written and on-motorcycle riding tests which allows them to obtain an "M" class driver license (an endorsement on the regular "D" license).

Table 5.11 Age of Motorcycle (MC) Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Driver's Age	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	# Drivers	%	# Drivers	%	# Drivers	%
<15	12	1.6%	11	1.7%	0	0.0%
15 - 19	111	15.0%	99	15.6%	2	9.5%
20 - 24	186	25.1%	165	26.0%	2	9.5%
25 - 29	101	13.6%	87	13.7%	1	4.8%
30 - 34	63	8.5%	53	8.4%	3	14.3%
35 - 39	56	7.6%	46	7.3%	2	9.5%
40 - 44	64	8.6%	55	8.7%	3	14.3%
45 - 49	46	6.2%	35	5.5%	3	14.3%
50 - 54	40	5.4%	29	4.6%	3	14.3%
55 - 59	23	3.1%	19	3.0%	1	4.8%
60 - 64	15	2.0%	14	2.2%	1	4.8%
65 - 69	4	0.5%	4	0.6%	0	0.0%
70+	11	1.5%	11	1.7%	0	0.0%
Missing	8	1.1%	6	0.9%	0	0.0%
Grand Total	740	100.0%	634	100.0%	21	100.0%

Figure 5.05 Age of Motorcycle Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000  
(See Table 5.11 for values)



Note: The above graph is based on percentages for the different crash categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. drivers in motorcycle injury crashes) from age group to age group. Do not compare the heights of the different crash categories for a specific age group.

Most motorcycle drivers (94.9%) involved in crashes were male. This does not necessarily indicate that male motorcycle drivers are at greater risk for a crash, but may reflect the higher proportion of male motorcycle drivers in Utah. (Table 5.12)

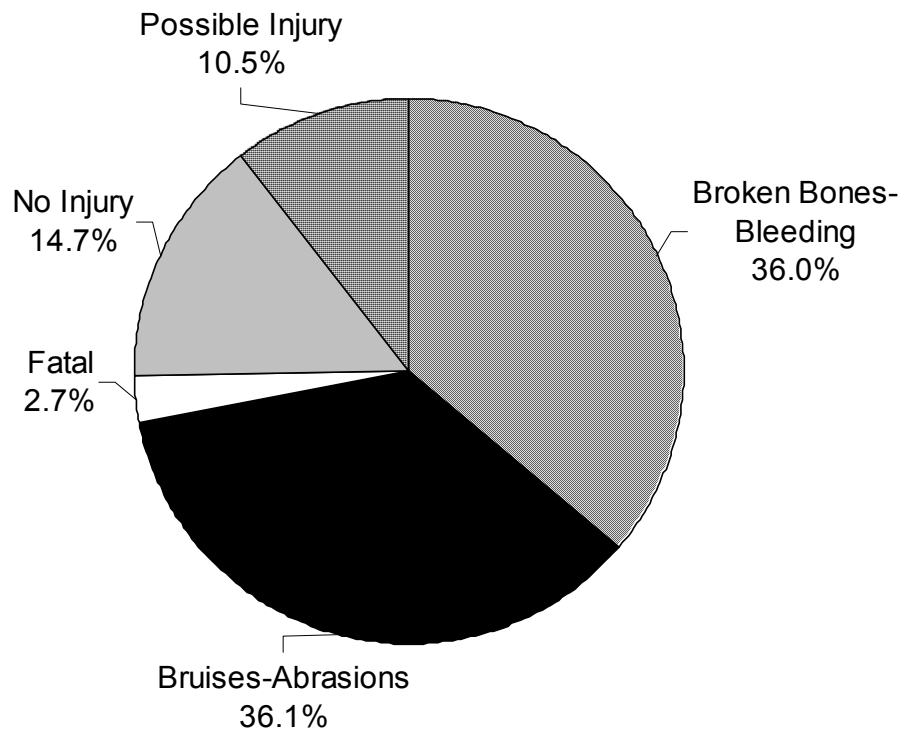
Table 5.12 Gender of Motorcycle (MC) Drivers Involved in Total Crashes, Injury Crashes and Fatal Crashes, Utah 2000

Driver's Gender	MC Total Crashes		MC Injury Crashes		MC Fatal Crashes	
	# Drivers	%	# Drivers	%	# Drivers	%
Female	35	4.7%	29	4.6%	2	9.5%
Male	702	94.9%	603	95.1%	19	90.5%
Missing	3	0.4%	2	0.3%	0	0.0%
Grand Total	740	100.0%	634	100.0%	21	100.0%

# Motorcyclist Injury Severity

Motorcyclists involved in a crash were injured at a much higher percentage (85.3%) compared to all other motor vehicle crash participants (21.6%). A fatal injury was sustained by 2.7% of motorcyclist compared to 0.3% of all motor vehicle crash participants. Fatalities were 9 times higher for motorcyclists than for other motor vehicle crash participants.

Figure 5.06 Motorcyclist Injury Severity as Reported by Police, Utah 2000 (n=845)



# Motorcyclists by County

Table 5.13 shows that while Salt Lake County has the largest number of total motorcyclists, injured motorcyclists and motorcyclists killed in crashes, the county did not have the highest rates per population. Daggett County had the highest rate per population of total and injured motorcyclists, while Rich county had the highest rate of fatalities.

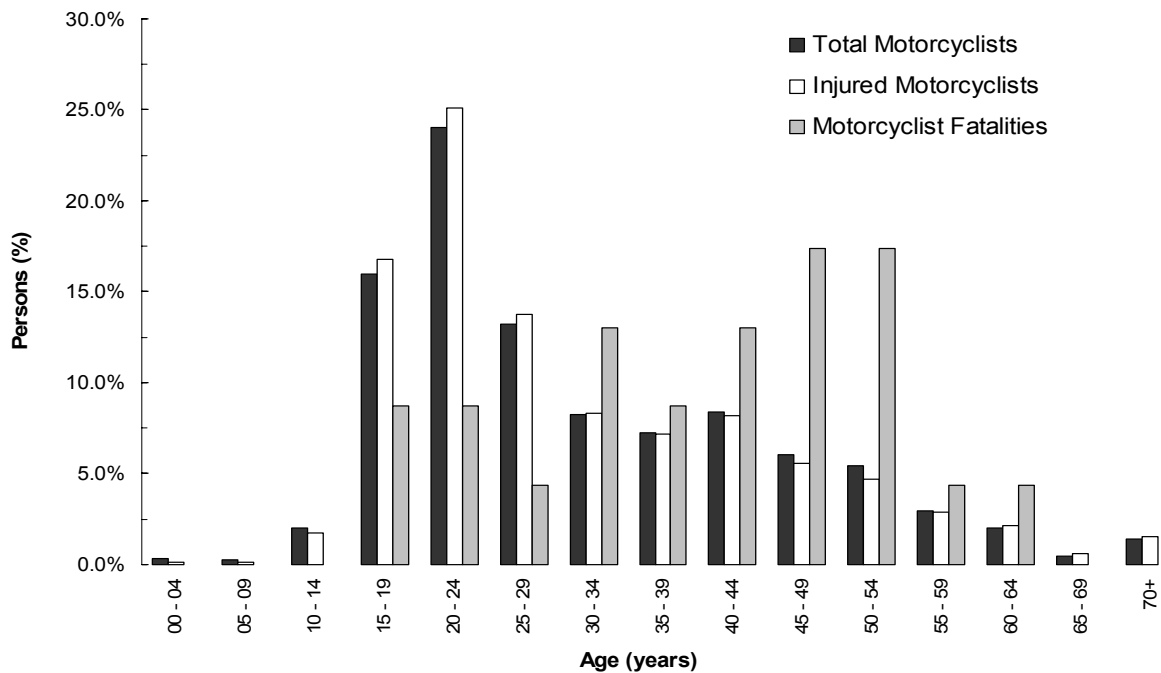
Table 5.13 Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities by County, Utah 2000

County	Total Motorcyclists		Injured Motorcyclists		Motorcyclist Fatalities	
	#	Rate Per 100,000 Population	#	Rate Per 100,000 Population	#	Rate Per 100,000 Population
Beaver	2	28.8	2	28.8	0	0.0
Box Elder	15	35.2	14	32.8	0	0.0
Cache	46	49.2	38	40.7	1	1.1
Carbon	10	44.1	10	44.1	0	0.0
Daggett	4	467.8	4	467.8	0	0.0
Davis	67	28.4	58	24.6	0	0.0
Duchesne	3	20.8	3	20.8	0	0.0
Emery	5	44.6	5	44.6	0	0.0
Garfield	7	147.4	5	105.3	1	21.1
Grand	5	45.5	3	27.3	0	0.0
Iron	11	32.0	10	29.1	0	0.0
Juab	4	48.9	3	36.6	0	0.0
Kane	6	80.2	5	66.8	1	13.4
Millard	5	38.7	4	31.0	1	7.7
Morgan	12	171.8	9	128.8	1	14.3
Piute	3	179.6	3	179.6	0	0.0
Rich	6	319.3	5	266.1	1	53.2
Salt Lake	315	36.1	249	28.5	7	0.8
San Juan	14	103.4	11	81.3	3	22.2
Sanpete	9	40.2	8	35.8	1	4.5
Sevier	16	81.6	14	71.4	0	0.0
Summit	10	36.4	9	32.7	1	3.6
Tooele	10	28.3	9	25.5	0	0.0
Uintah	4	16.0	1	4.0	0	0.0
Utah	145	41.9	125	36.1	1	0.3
Wasatch	5	34.7	5	34.7	0	0.0
Washington	32	37.1	28	32.5	0	0.0
Wayne	6	228.9	5	190.8	0	0.0
Weber	68	35.7	53	27.8	4	2.1
Statewide	845	38.9	698	32.1	23	1.1

# Motorcyclist Characteristics

The largest number of total motorcyclists and injured motorcyclists were aged 20 to 24 years (Figure 5.07 and Table 5.14). Motorcycle crash fatalities occurred most often in the 45 to 54 year age groups.

Figure 5.07 Age of Total Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000



Note: The above graph is based on percentages for the different injury categories. To read the above graph, look at one category across the age groups. For example, look at only the white bars (i.e. injured motorcyclist) from age group to age group. Do not compare the heights of the different injury categories for a specific age group.



Table 5.14 Age of Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000

Age	Total Motorcyclists		Injured Motorcyclists		Motorcyclist Fatalities	
	#	%	#	%	#	%
00 - 04	3	0.4%	1	0.1%	0	0.0%
05 - 09	2	0.2%	1	0.1%	0	0.0%
10 - 14	17	2.0%	12	1.7%	0	0.0%
15 - 19	135	16.0%	117	16.8%	2	8.7%
20 - 24	203	24.0%	175	25.1%	2	8.7%
25 - 29	112	13.3%	96	13.8%	1	4.3%
30 - 34	70	8.3%	58	8.3%	3	13.0%
35 - 39	61	7.2%	50	7.2%	2	8.7%
40 - 44	71	8.4%	57	8.2%	3	13.0%
45 - 49	51	6.0%	39	5.6%	4	17.4%
50 - 54	46	5.4%	33	4.7%	4	17.4%
55 - 59	25	3.0%	20	2.9%	1	4.3%
60 - 64	17	2.0%	15	2.1%	1	4.3%
65 - 69	4	0.5%	4	0.6%	0	0.0%
70+	12	1.4%	11	1.6%	0	0.0%
Missing	16	1.9%	9	1.3%	0	0.0%
Grand Total	845	100.0%	698	100.0%	23	100.0%

Table 5.15 shows that the majority of motorcycle crash participants (85.9%), injured motorcyclists (87.0%) and motorcycle fatalities (82.6%) were male.

Table 5.15 Gender of Motorcyclists, Injured Motorcyclists and Motorcyclist Fatalities, Utah 2000

Gender	Motorcyclists		Injured Motorcyclists		Motorcyclist Fatalities	
	#	%	#	%	#	%
Female	115	13.6%	90	12.9%	4	17.4%
Male	726	85.9%	607	87.0%	19	82.6%
Missing	4	0.5%	1	0.1%	0	0.0%
Grand Total	845	100.0%	698	100.0%	23	100.0%

Examination of the crash placement (driver vs passenger) shows that drivers accounted for the majority (87.6%) of injured motorcyclists (Table 5.16). While motorcycle drivers represented more fatalities, the rate of fatal injury was similar for both motorcycle drivers and motorcycle passengers. In addition, there were 5 pedestrians and bicyclists involved in motorcycle crashes; all sustained non-fatal injuries.

Table 5.16 Crash Placement of Total Motorcyclists, Injured Motorcyclists, and Motorcyclist Fatalities, Utah 2000

<b>Crash Placement</b>	<b>Total Motorcyclists</b>		<b>Injured Motorcyclists</b>		<b>Motorcyclist Fatalities</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
Driver	740	87.6%	616	88.3%	21	91.3%
Passenger	105	12.4%	82	11.7%	2	8.7%
Grand Total	845	100.0%	698	100.0%	23	100.0%

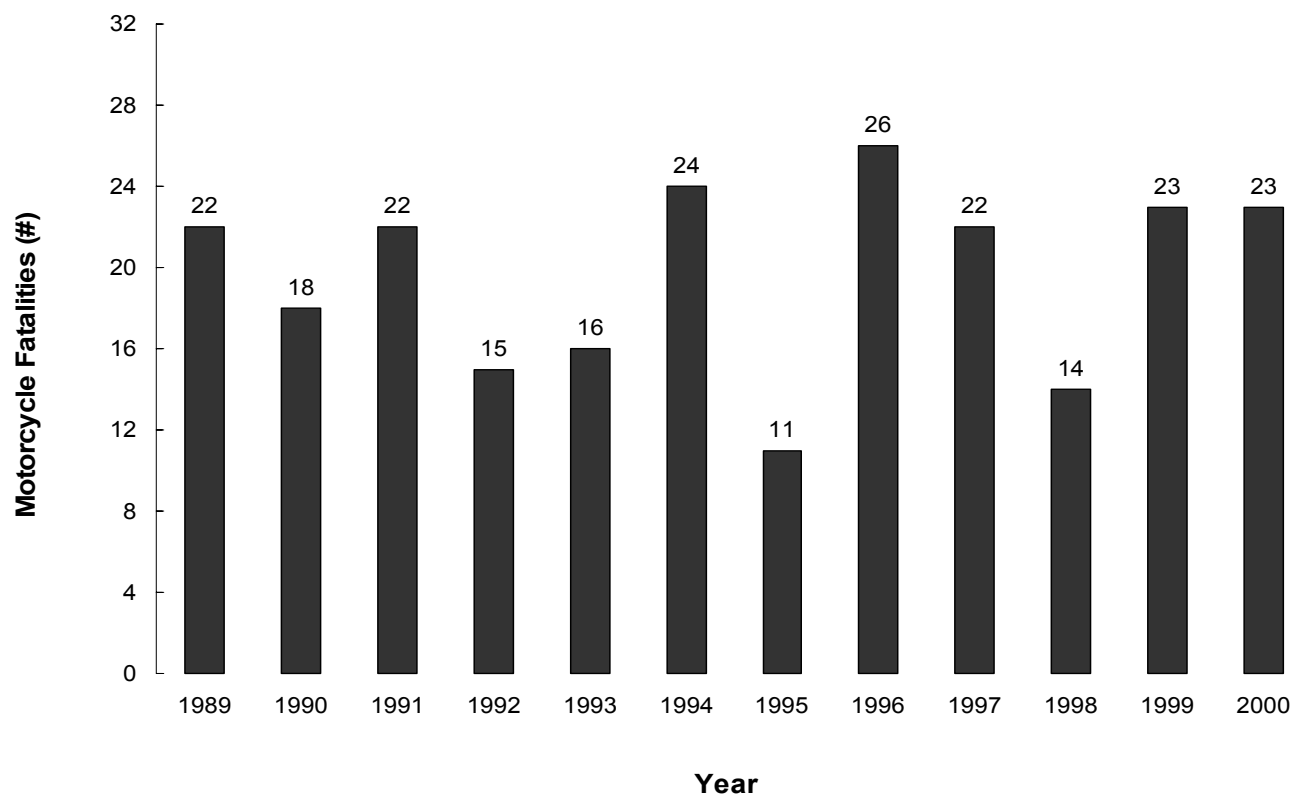
Only 29.5% of motorcycle drivers and passengers involved in crashes wore a helmet (Table 5.17). The percentage of helmet use was slightly higher for those who were injured (31.2%), and those who died (34.8%). Utah law states that anyone under the age of 18 years riding a motorcycle either as the driver or as a passenger must wear a helmet approved by the Department of Public Safety.

Table 5.17 Helmet Use by Total Motorcyclists Involved in Crashes, Utah 2000

<b>Helmet</b>	<b>Total Motorcyclists</b>		<b>Injured Motorcyclists</b>		<b>Motorcyclist Fatalities</b>	
	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
Used	249	29.5%	218	31.2%	8	34.8%
Not Used / Unknown	596	70.5%	480	68.8%	15	65.2%
Grand Total	845	100.0%	698	100.0%	23	100.0%

In 2000, there were 23 motorcycle crash fatalities. For the past 10 years the number of motorcyclist fatalities has fluctuated year to year. The low occurred in 1995 with 11 fatalities, and the high was in 1996 with 26 fatalities (Figure 5.08). However, with the small number of fatalities, it is difficult to compare increases and decreases from year to year, therefore, these numbers should be interpreted with caution.

Figure 5.08 Motorcyclist Crash Fatalities, Utah 1989 - 2000



#### **Alcohol and Other Drugs:**

Of the 23 fatal motorcycle crashes, 7 involved alcohol and other drug use by the motorcycle driver.